

## ASSIGNMENT 6

Textbook Assignment: "New Technology in Data Communications," chapter 7, pages 7-6 through 7-11 (continued); "Local-Area Networks," chapter 8, pages 8-1 through 8-14.

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- 6-1. Compared to Link-11, Link-16 is nodeless for which of the following reasons?
1. Once the net is established, all units must participate
  2. Only one unit controls the net
  3. Once the net is established, operations can continue regardless of the participation of any particular unit
  4. A computer is not required to participate in the net
- 6-2. Which of the following JTIDS security features is designed to prevent jamming?
1. Data encryption
  2. Waveform encryption
  3. Introduction of jitter and noise
  4. Frequency hopping
- 6-3. Which of the following network participation groups is normally excluded from Navy command and control units?
1. Weapons coordination
  2. Air control
  3. Fight-to-fighter
  4. Secure voice
- 6-4. JU numbers 00001 through 00177 are normally assigned to which of the following units?
1. Link-4A and Link-16 capable units
  2. Command and Control units
  3. Link-16 capable aircraft
  4. Link-11 and Link-16 capable units
- 6-5. Which of the following Link-16 track numbers would designate the same Link-11 track?
1. 00000 through 07777
  2. 01000 through 77777
  3. 00200 through 07777
  4. 00500 through 77777
- 6-6. A Link-16 track that has a reported track quality of 15 indicates the track is within exactly how many feet of the reported position?
1. 10
  2. 25
  3. 50
  4. 75
- 6-7. Which of the following track identifications has been added for use with the Link-16 system?
1. Neutral
  2. Hostile
  3. Assumed hostile
  4. Unknown
- 6-8. The identifier "Unknown assumed enemy" has been changed in the Link-16 system to what identifier?
1. Neutral
  2. Suspect
  3. Unknown assumed hostile
  4. Hostile
- 6-9. Link-16 has added which of the following data fields to friendly aircraft status reports?
1. Ordnance inventory
  2. Equipment Status
  3. Fuel available for transfer
  4. All of the above
- 6-10. The Relative Navigation function of the Link-16 system is required for which of the following functions?
1. Maintain synchronization
  2. Maintain position
  3. Detect course errors
  4. Correct the navigation plot

- 6-11. Which of the following equipment configurations fully implements the capabilities of the Link-16 system?
1. Model-3
  2. Model-4
  3. Model-5
  4. Model-6
- 6-12. Using the Link-16 Model-5 system, link data generated by the ACDS computer is normalized to be independent of any particular system.
1. True
  2. False
- 6-13. Using the Link-16 Model-5 system, which of the following components formats link data for transmission over any one of the three data links?
1. ACDS
  2. C2P
  3. Link-16 data terminal
  4. TDS computer

- A. Digital data processor group
- B. Receiver/transmitter group
- C. High power amplifier group
- D. Power interface unit
- E. Secure data unit

Figure 6A.

IN ANSWERING QUESTIONS 6-14 THROUGH 6-17, SELECT FROM FIGURE 6A THE EQUIPMENT COMPONENT GROUP OF THE JTIDS TERMINAL THAT PERFORMS THE FUNCTION OR OPERATION DESCRIBED IN THE QUESTION. NOT ALL ITEMS IN THE LIST ARE USED.

- 6-14. A removable assembly that stores cryptovariables.
1. B
  2. C
  3. D
  4. E
- 6-15. Generates a 75-MHz intermediate frequency for internal communications.
1. A
  2. B
  3. C
  4. D

- 6-16. Provides the interface with the antenna.
1. A
  2. B
  3. C
  4. D
- 6-17. Performs digital-to-analog and analog-to-digital conversion of voice signals.
1. A
  2. B
  3. C
  4. D
- 6-18. The Command and Control (C2P) system controls and manages the interface of which of the following data links?
1. Link-4A only
  2. Link-11 only
  3. Link-16 only
  4. All tactical data links
- 6-19. Messages received by the C2P over the Link-11 net cannot be retransmitted over the Link-16 net.
1. True
  2. False
- 6-20. A local area network (LAN) performs which of the following functions?
1. Enables users to share data
  2. Enables users to share peripheral devices
  3. Allows users to send and receive messages via computer
  4. All of the above
- 6-21. Which of the following items is a node in a LAN system?
1. Twisted pair cable
  2. Communications media
  3. Fiber-optic cable
  4. Large capacity hard drive

- 6-22. Twisted pair cable used in a LAN has which of the following advantages?
1. High data transmission speeds
  2. Low costs and easy to install
  3. Shielded from electrical interference
  4. Secure data transmission
- 6-23. In designing a LAN system that requires the transmission of digital data, audio, and video simultaneously, which of the following cables would be best suited to the system?
1. Twisted pair
  2. Shielded twisted pair
  3. Broadband coaxial
  4. Baseband coaxial
- 6-24. Which of the following types of cable is immune to interference from electrical and electronic devices?
1. Fiber optic
  2. Baseband coaxial
  3. Shielded twisted pair
  4. Telephone cable
- 6-25. Which of the following devices provides the interface between the LAN and a personal computer?
1. Network server
  2. NIC
  3. Disk server
  4. Cables
- 6-26. Which of the following devices is used to manage the shared resources of the LAN?
1. Network server
  2. NIC
  3. Disk server
  4. Network monitor
- 6-27. Early disk servers suffered from which of the following problems?
1. Lack of security
  2. No data organization
  3. No disk management
  4. All of the above
- 6-28. Ensuring data integrity by preventing multiple users access to the same record at the same time is known as what process?
1. File locking
  2. Field locking
  3. Record locking
  4. Disk lockout
- 6-29. Which of the following servers was developed to provide reliable disk management in a LAN?
1. Disk server
  2. Print server
  3. File server
  4. Network server
- 6-30. Which of the following functions is NOT performed by the file server?
1. Routing files to a central printer for printing
  2. Processing of the network control software
  3. Converting high-level disks calls from a workstation to low-level disk commands
  4. Maintaining the list of user privileges and authorizations
- 6-31. When designing and building a LAN system, all workstations must be from the same manufacturer.
1. True
  2. False
- 6-32. The OSI reference model is used to define which of the following communications standards?
1. Interconnection of communications facilities
  2. Software
  3. Hardware
  4. Protocol

- 6-33. What layer of the OSI reference model describes the electrical, the mechanical, and the functional interface of the communications channel?
1. Physical layer
  2. Data link layer
  3. Network layer
  4. Transport layer
- 6-34. What layer of the OSI reference model establishes and deletes host-to-host connections across the network?
1. Data link layer
  2. Network layer
  3. Transport layer
  4. Session layer
- 6-35. As a translator for the network, what layer of the OSI reference model provides a common representation for data which can be used between the application processes?
1. Network layer
  2. Transport layer
  3. Session layer
  4. Presentation level/layer
- 6-36. Which of the following layers of the OSI reference model provides error-free transmission of information over the physical medium?
1. Physical
  2. Data link
  3. Network
  4. Transport
- 6-37. Communications between users on two different machines are established by what layer of the OSI reference model?
1. Data link
  2. Network
  3. Transport
  4. Session
- 6-38. Based on network conditions and priority of service, what layer of the OSI reference model decides which physical pathway the data should take?
1. Physical
  2. Data link
  3. Network
  4. Transport
- 6-39. The application level/layer of the OSI reference model provides the protocols for which of the following user items?
1. Media interface
  2. Electronic mail
  3. Routing of messages between networks
  4. Data compression
- 6-40. Which of the following is NOT a LAN topology?
1. Linear
  2. Ring
  3. Star
  4. EtherNet
- 6-41. Which of the following features of a linear bus topology should be considered an advantage?
1. Signal interference when nodes are too close to each other
  2. System remains operable even when one or more nodes fail
  3. Very secure system
  4. Very easy to run system diagnostics from the LAN administrator
- 6-42. In which of the following network topologies, if any, is each node individually connected to the network server?
1. Linear bus
  2. Star
  3. Ring
  4. None of the above

6-43. Which of the following network access methods requires each node to wait for permission to transmit data?

1. CSMA
2. CSMA/CD
3. Token passing
4. Contention

6-44. On a network that uses the CSMA/CD access method, which of the following actions, if any, will be taken when a data collision is detected?

1. The workstation will cease transmission and wait until the line is clear
2. The workstation will continue to transmit data
3. The network server will assign the next open time to the workstation that suffered the collision
4. No action is taken; the data is lost

6-45. In a LAN using a token ring topology, the interface and protocols are defined by which of the following IEEE standards?

1. IEEE 802
2. IEEE 802.3
3. IEEE 802.4
4. IEEE 802.5

6-46. Which of the following LAN systems uses a token ring topology and has a data throughput of 4 Mbits and 16 Mbits per second?

1. EtherNet
2. STARLAN
3. ARCnet
4. IBM Token Ring

- A. Control kernel
  - B. Network interfaces
  - C. File systems
  - D. File extensions

Figure 6B.

IN ANSWERING QUESTIONS 6-46 THROUGH 6-49, SELECT FROM FIGURE 6B THE NETWORK OPERATING SYSTEM COMPONENT THAT PERFORMS THE FUNCTION DESCRIBED IN THE QUESTION. NOT ALL ITEMS IN THE LIST ARE USED.

6-47. Provides low-level subnet protocols and translation for bridging hardware drivers with the network operating system.

1. A
2. B
3. C
4. D

6-48. Controls data organization, storage, and retrieval on the various storage systems available to the network.

1. A
2. B
3. C
4. D

6-49. The main subsystem of the network operating software.

1. A
2. B
3. C
4. D

6-50. Which of the following network operating systems, if any, is designed for very few users and light usage?

1. Full featured
2. Low cost
3. Zero slot
4. None of the above

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THIS FORM MAY BE USED TO SUGGEST IMPROVEMENTS, REPORT COURSE ERRORS, OR TO REQUEST HELP IF YOU HAVE DIFFICULTY COMPLETING THE COURSE.

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STREET ADDRESS, APT #

DSN: \_\_\_\_\_

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FAX: \_\_\_\_\_

INTERNET: \_\_\_\_\_

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CITY, STATE, ZIP CODE

To: COMMANDING OFFICER  
NETPDTC CODE N315  
6490 SAUFLEY FIELD RD  
PENSACOLA FL 32509-5237

Subj: *ELECTRONICS TECHNICIAN-VOLUME 3, COMMUNICATIONS SYSTEMS*, NAVEDTRA  
12413-A

1. The following comments are hereby submitted:

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TITLE \_\_\_\_\_ NAVEDTRA \_\_\_\_\_

NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_  
Last First Middle Street/Ship/Unit/Division, etc.

RANK/RATE \_\_\_\_\_ SSN \_\_\_\_\_ DESIGNATOR \_\_\_\_\_ City or FPO \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
ASSIGNMENT NO. \_\_\_\_\_ Date Submitted: \_\_\_\_\_

☐ USN ☐ USNR ☐ ACTIVE ☐ INACTIVE OTHER (Specify) \_\_\_\_\_

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